

# PATENT SPECIFICATION

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DRAWINGS ATTACHED.

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## COMPLETE SPECIFICATION.

### Multi-Coloured Cosmetic Preparation.

We, WARNER-LAMBERT PHARMACEUTICAL COMPANY, a corporation organized under the laws of the State of Delaware, United States of America, of 201 Tabor Road, Morris Plains, State of New Jersey, United States of America, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to a multi-colored unitary cosmetic preparation. More particularly, the invention relates to a method of producing a multi-colored lipstick wherein the several colors are heterogeneously associated in the color combinations employed.

The application of several lipsticks to produce a two-toned or multi-colored effect on the lips is a well-known practice. It is customary practice to use two lipsticks to achieve the desired multi-colored effect; one being applied as a base lining and the second being superimposed thereon for contrast.

In an attempt to produce a unitary lipstick having one color for lining and a second for contrast, lipsticks have been produced wherein individual segments of different colors are molded separately and the segments then pressed together to produce a unitary stick or mass. Such lipsticks have, however, met with limited commercial success as they are more difficult and expensive to produce than individual solid colored lipsticks. Further, lipsticks which are formed by combining molded lipstick segments of different colors into a multi-color tube are commonly used as separate lipsticks offering the convenience of two colors in one.

It has now been found that a unique cosmetic preparation comprising a heterogeneous multi-colored lipstick may be obtained in accordance with the present invention by heterogeneously associating two or more

differently colored lipstick masses so as to produce a result which, heretofore, could only be accomplished by use of separate and distinct lipsticks. This invention arises out of the surprising discovery that the incorporation of an inert fortifying agent in cosmetic lipstick base formulations results in a degree of viscosity greater than is normally present in such molten masses and it is this enhanced viscosity which enables the production of the heterogeneous color associations by the practice of this invention.

An important object of this invention is to provide a multi-colored lipstick composition wherein the colors are so combined that a heterogeneous color effect is provided with the separate colors being sharply delineated.

Another object of this invention is to provide a method for preparing such multi-colored lipsticks wherein the colors are combined heterogeneously in a single tube so that said tube is convenient for the simultaneous application of the multi-colored mass to the lips.

Other objects will become apparent from the following detailed description and the accompanying drawing in which:—

Fig. 1 is a flow diagram of the process employed in the present invention for producing the novel lipstick compositions of this invention, and

Fig. 2 is a side elevational view of the novel lipstick of this invention produced thereby.

More particularly, the invention provides a method for the preparation of multi-colored lipsticks which comprises preparing a lipstick base formulation, adding distinctively different coloring agents to separate portions of the lipstick base formulation, blending with each colored base formulation from 0.1 to 12% by weight of an inert fortifying agent thereby increasing the viscosity

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of the melted formulation, melting the separate lipstick base formulations and combining the molten colored base formulations into a unitary product having two or more heterogeneously associated colors.

Referring to Fig. 1, a base formulation is prepared from a mixture of ingredients well known in the art and preferably free of coloring pigments or perfumes, which are blended in tank 10 by stirring rod 12. If desired, different lipstick base formulations may be prepared for each separate coloring agent to be utilized in the final product or, as shown in Fig. 1, a single base formulation may be prepared which is divided and subsequently combined with desired colors and pigments. Regardless of how the lipstick base formulations are prepared, it is desirable that the base formulations for each color have substantially similar consistencies to produce a uniform product when combined.

After the lipstick base formulations have been prepared individual portions are taken by lines 14 and 16 and received in color blending tanks 18 and 20. At least two distinctively different colors are then added to separate portions of the base formulation in the color blending tanks through lines 22 and 24 and dispersed by stirrers 26 and 28 along with perfumes as desired. In this manner, at least two distinctively colored base compositions are prepared for further processing. The base formulations, the coloring agents, any additive agents and the perfumes may all be combined by any of the mixing methods well known to the art such as roller mills, or colloid mills. Also, additional colors and coloring tanks may be used to prepare and combine colored bases as described to give a multi-colored product in which more than two distinct colors are combined.

After the colors and pigments as well as perfumes, if desired, have been added to and combined with the lipstick base formulation in color blending tanks 18 and 20, an addition of an inert fortifying agent such as fine silica having an average particle size of approximately 0.02 microns is made in an amount which can vary from 0.1 to 12% by weight of the base. A preferred concentration of extremely fine silica is from 2% up to 5% by weight of the lipstick base formulation. Although extremely finely divided silica is preferred as a fortifying agent, various other finely powdered compositions may also be employed provided they increase the molten viscosity of the base formulations without affecting the uniform consistency of the ultimate product. Materials usefully employed as fortifying agents include materials such as, for example, silica of larger particle size, alumina, calcium carbonate, magnesium carbonate, bentonites, talcs, and zinc oxide. Various

other means may also be employed to achieve the proper molten viscosity, such as the addition of various oil soluble resins, soluble metallic soaps and viscous polymerized oils. Extremely fine silica particles are preferred, however, because control over the molten viscosity is easily achieved with virtually no effect upon the final lipstick texture. This control is fundamentally important in the manufacture of lipstick according to this invention because viscous molten masses promote the formation of sharply defined color separation with virtually no intermixing. Alternatively these fortifying agents may be added during the initial blending of the ingredients in tank 10 but by adding them to the color blending tanks, greater control may be achieved in producing the proper molten viscosity while maintaining uniform consistency in the final product.

The blended color-containing base formulations from the color blending tanks are allowed to flow by lines 30 and 32 into a funnel shaped heterogeneous blender 34 which is shown rotating about its vertical axis by gear 36 driven by electric powered motor 38. Under uniform laminar-flow conditions, the flow from lines 30 and 32 of the color blending tanks may be regulated to coincide to the mixed outflow via line 40. This may be achieved by maintaining a slight reservoir at the construction of the funnel shaped heterogeneous blender, i.e. the point where the colors are blender. However, a more desirable method of achieving laminar-flow blending conditions in the heterogeneous association of colored base formulations is to add a divider plate, not shown, in the funnel for each particular color. Dividing partitions which are, for example, annular or sectional may also be employed to impart various design characteristics to the heterogeneous association of colored base formulations. When a dividing partition is used for two lipstick colors a stopper is inserted in the outflow stream from the funnel while the compartments, which may be heated, are filled. Thereupon, the stopper is removed and the funnel rotated while the exit flow of blended colors is directed into a suitable lipstick split mold.

The funnel shaped heterogeneous blender 34 may be rotated at any desirable speed such as from about 1 rpm up to about 200 rpm, noncritically. Additional procedures may be devised to create desirable swirl and marble pattern effects which may readily be adapted to the present process such as, for example, by employing rotational motion of spigots in place of the funnel, noncircular motion of the funnel, or of the mold, the mold oscillating under a stationary funnel the mold oscillating under a rotating funnel or the mold rotating under an oscillating funnel. The apparatus should therefore be

designed to avoid turbulent flow during the combining of the colors.

Referring to Fig. 2, there is shown a lipstick formed by the process of Fig. 1 where-  
 5 in a dark colored lipstick 42 is heterogeneously associated with a light colored lipstick 44 in the form of a lipstick tube. The tube is shown in a case 46 having adjustable base  
 10 lipstick from the case.

The term "heterogeneously associated" as used herein means the intimate combination of distinctively different colored base compositions to form a mass having virtually  
 15 complete color separation which may be easily perceived by the unaided, naked eye.

The compositions for use in base formulation include any suitable base material known to the art which contains materials  
 20 such as carnauba wax, candellila wax, ozokerite, bees wax, lanolin, ceresin, spermaceti, isopropyl myristate and castor oil which when combined produce a suitable base formulation having the suitable viscosity for the  
 25 molten combination of the colors. An example of a suitable lipstick base composition usefully employed is as follows:

<i>Composition</i>				<i>Weight Percent</i>
	Castor oil	...	...	65.0
30	Candellila	...	...	7.0
	Lanolin	...	...	10.0
	Carnauba wax	...	...	3.0
	Ozokerite	...	...	3.0
	Beeswax	...	...	7.0
35	Isopropyl myristate	...	...	5.0

The coloring agents usefully employed in this invention to provide proper coloring to the base formulation prior to their being heterogeneously associated includes those well  
 40 known to the art such as, for example, Food, Drug and Cosmetic or Drug and Cosmetic certified colors and inert pigments suitable for use in lipsticks. These dyes and pigments may be added in an amount from  
 45 about 5 to about 20 parts by weight for each 100 parts by weight of lipstick base. Flavor-

ing such as synthetic aromatics or essential oils may also be included if desired.

Additional material such as flavoring or perfumes are not necessary to or essential  
 50 parts of the present composition but may be used as desired in relatively small quantities

#### WHAT WE CLAIM IS:—

1. A method for the preparation of multi-colored lipsticks which comprises preparing  
 55 a lipstick base formulation, adding distinctively different coloring agents to separate portions of the lipstick base formulation, blending with each colored base formulation from 0.1 to 12% by weight of an inert fortifying agent thereby increasing the viscosity  
 60 of the melted formulation, melting the separate lipstick base formulations and combining the molten colored base formulations into a unitary product having two or more hetero-  
 65 geneously associated colors.

2. A method according to claim 1 wherein the molten colored base formulations are combined into a flowing stream and the flow-  
 70 ing stream is shaped into a product having two or more heterogeneously associated colors.

3. A method according to claim 2 wherein the inert fortifying agent is fine silica  
 75 particles having an average particle size of about 0.02 microns.

4. A method for the preparation of multi-colored lipsticks substantially as described  
 80 herein and as shown in the accompanying drawings.

5. Multi-colored lipsticks whenever prepared by a process according to any of the preceding claims.

6. A multi-colored unitary lipstick which  
 85 comprises a heterogeneous association of at least two distinctively different shades of base formulation, substantially as described herein and as shown in the accompanying drawings.

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